

SEARAY™ Right Angle Fixturing Recommendation
For use with Samtec SEAM-RA/SEAF-RA Series - 8 and 10 Row Connectors

Samtec SEARAY™ Right Angle connectors (SEAM-RA/SEAF-RA Series) are processed like other high density, open pin field array devices. The basic steps are:

1. Closely follow Samtec’s recommended footprint and stencil designs,
2. Place the SEARAY™ connectors on the board,
3. Use an optimized oven profile to ensure proper solder charge reflow and joint formation.

Although not every application requires it, Samtec recommends the use of a Fixture Tool for the 8 and 10 row versions of the SEARAY™ connector to maintain co-planarity through the reflow process. Each SEARAY™ connector utilizes a specific Fixture Tool based on the connector’s gender, number of positions and number of rows. The Fixture Tools can be used with or without the connector’s optional Guide Posts. Refer to the chart below for valid SEARAY™ Fixture Tool Part Numbers.

SEARAY™ Fixture Tools			
Part Number	Gender	Positions	Row
CAT-SEAF-20-01-RA	Socket	20	-08 and -10
CAT-SEAF-30-01-RA	Socket	30	-08 and -10
CAT-SEAF-40-01-RA	Socket	40	-08 and -10
CAT-SEAF-50-01-RA	Socket	50	-08 and -10
CAT-SEAM-20-08-RA	Terminal	20	-08
CAT-SEAM-30-08-RA	Terminal	30	-08
CAT-SEAM-40-08-RA	Terminal	40	-08
CAT-SEAM-50-08-RA	Terminal	50	-08
CAT-SEAM-20-10-RA	Terminal	20	-10
CAT-SEAM-30-10-RA	Terminal	30	-10
CAT-SEAM-40-10-RA	Terminal	40	-10
CAT-SEAM-50-10-RA	Terminal	50	-10

The SEARAY™ Fixture Tool is reusable and should be manually installed on the connector just prior to entering the reflow oven.

CAUTION SHOULD BE USED WHEN HANDLING THE PARTS AFTER THEY HAVE EXITED THE OVEN AS THE TOOL WILL BE HOT.

The tapered pins on the corners of the Fixture Tool fit into the slots on the SEARAY™ part as seen to the right.

Depending on the quantity of SEARAY™ connectors being used and the target production rate, several Fixture Tools may be required. Samtec recommends at any given time there be a minimum of:

- 3 Fixture Tools available for loading on the front end of the oven,
- 3 Fixture Tools cooling at the exit of the oven,
- Enough Fixture Tools to fill the oven's conveyor system.

Assuming :

- The oven being used is 210 inches long,
- Each printed circuit assembly contains one SEARAY™ connector,
- The printed circuit assemblies are spaced evenly in the oven on 18 inch centers,

The total recommended number of Fixture Tools would be:

$$3 + 3 + 12 = 18 \text{ Fixture Tools}$$

where,

$$12 = 210 \text{ in} \div 18 \text{ in/board} = 11.67 \text{ boards} \sim 12 \text{ boards}$$

Currently these Fixture Tools are recommended for use **ONLY** with the 8 and 10 row versions of the SEAM-RA/SEAF-RA Series SEARAY™ connectors.

